

## **INNOVATIONS IN PURE LOSSLESS AUDIO COMPRESSION**

### **ABSTRACT**

A lossless audio compression scheme is adapted for use in a unified lossy and lossless audio compression scheme. In the lossless compression, the adaptation rate of an adaptive filter is varied based on transient detection, such as increasing the adaptation rate where a transient is detected. A multi-channel lossless compression uses an adaptive filter that processes samples from multiple channels in predictive coding a current sample in a current channel. The lossless compression also encodes using an adaptive filter and Golomb coding with non-power of two divisor.